AMONG the more recent and more unique innovations in reading instruction is the Initial Teaching Alphabet (i/t/a) created by Sir James Pitman. Briefly, the i/t/a is an augmented Roman alphabet utilizing 24 of the original letter symbols and 20 new symbols which generally look like combinations of the original letters. By adding the 20 new symbols, Pitman's i/t/a makes it possible for each phoneme or sound in the spoken language to be represented by a single written symbol or grapheme.

This article, however, is not designed to discuss the features of the i/t/a, for these have been ably described by John A. Downing (1,2). Rather, its purpose is to take an objective look at the status of the i/t/a with a major emphasis on the Lehigh-Bethlehem investigation presently being conducted in the United States.

The i/t/a in England

The first large scale research into the merits of the i/t/a as a medium for teaching beginning reading, began in England in September 1961, under the direction of John Downing. Since i/t/a is a two-stage approach which requires children to begin in i/t/a and eventually to transfer to the traditional orthography (T.O.), Downing's study was originally scheduled to take place over several years. But the longitudinal nature of the investigation, as well as the great interest it generated, prompted Downing to make periodic progress reports (1,3,4). The most recent findings reported in these sources indicated that, on the basis of standardized tests printed in T.O., 146 children taught with i/t/a were significantly superior in reading comprehension and accuracy, to a group of 190 children taught with T.O. eighteen months after instruction began, and that a group of 318 children taught with i/t/a spelled T.O. words significantly better than a group of 602 children taught with T.O. two-and-one-half years after the experiment began (3,4).

What these interim results from the investigations in England mean for the teaching of reading in the United States appears to be clear at the present time. First, it seems appropriate to observe, on the basis of what is known, that the findings in England cannot be generalized across the Atlantic Ocean for a number of reasons: (a) the number of children

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upon which the interim results are based is quite small; (b) the children in the study began to learn to read at the ages of four and five, while children in the United States generally begin reading at the age of six; (c) Downing's investigation in England will not be completed until 1974, and, on the basis of the principal investigator's statements, the interim results are still tentative.

The second implication that the i/t/a experiment in England holds for reading instruction in the United States is that it is a way of teaching reading which warrants objective evaluation in the context of the classrooms in this country.

The Lehigh-Bethlehem i/t/a Study

Several worthwhile investigations on this subject are presently under way in this country, as a result of the work in England. However, the one which has progressed farthest is the Lehigh-Bethlehem i/t/a study conducted by Albert J. Mazurkiewicz. The purposes of this study, which is designed to last three years, are: (a) to demonstrate how i/t/a may be inducted into a school system over a period of time; and (b) to evaluate the long term differences in achievement that may occur when some children are taught to read with i/t/a while others are taught to read with T.O.

Until recently, only bits and pieces about the Lehigh-Bethlehem study were available; however, Professor Mazurkiewicz corrected this situation by publishing a progress report in November 1964 (5).

The most important findings appearing in this report were those obtained during May 1964, nine months after the study was initiated. At this point, 114 i/t/a students, who made the transition from i/t/a to T.O. and who had been reading only T.O. materials for at least one week, were selected from the total sample of 454 i/t/a students and matched with 114 of the 874 T.O. students on the basis of I.Q., sex, age and socioeconomic status. These two groups were compared on their mean achievements in reading and spelling based on the results from the California Reading Test, Lower Primary (CRTLP), California Reading Test, Upper Primary (CRTUP), and Stanford Achievement Spelling Test, Primary (SAST). The results indicated that the i/t/a students were significantly superior to the T.O. students in word recognition and total reading on the CRTLP and in word recognition, comprehension, and total reading on the CRTUP. No significant differences were found between the two groups on the CRTLP comprehension subtest or on the SAST.

On the basis of these results, Mazurkiewicz tentatively concluded that i/t/a children who made the transfer to T.O. by the ninth month of the first year were significantly better readers of T.O. than a comparable group of children who had been taught by similar procedures but who had been taught with T.O. from the start.

Evaluation of the Study

How can one evaluate the Lehigh-Bethlehem Study as described in the progress report? Since the main hypothesis of the Lehigh-Bethlehem study is that differences in achievement in reading between the i/t/a group and T.O. group can be attributed to the differences in the alphabets used, the study itself should rule out factors, other than

March 1965
the differences between the two alphabets, which might account for any differences in achievement. However, the first interim report leaves a number of possible influencing factors open to question.

First, no mention is made of the comparability of the i/t/a teachers and the T.O. teachers. How were the teachers selected for their roles in the investigation? Did they volunteer? Were the teachers in both groups comparable in terms of education, experience, and enthusiasm for their parts in the experiment?

The answers to these questions were not made clear in the Lehigh-Bethlehem progress report and, as a result, the effect teachers had on the results is open to question.

Second, although the report indicated that the two programs emphasized a language arts approach and that the two programs were comparable, the fact remains that the T.O. children were exposed to a co-basal program while the i/t/a children were exposed to the i/t/a Early-to-Read Series. A cursory look suggests that T.O. basal series differ markedly from the Early-to-Read Series, particularly in terms of their pacing of instruction in word analysis. For example, the report indicated that the i/t/a word recognition program placed primary emphasis on relating the sounds of English to the 44 i/t/a symbols. Furthermore, it was stated that the capable i/t/a children completed this part of the word recognition program in three or four months, while the average i/t/a children completed it in five or six months. In contrast to this, most basal series do not work on vowels until the end of first grade or the beginning of second grade. Assuming that the T.O. teachers followed their manuals, this difference between the two programs could mean that the majority of the i/t/a students were far ahead of their T.O. counterparts by the sixth month of the experiment in their understanding and use of sound-to-symbol relationships, when decoding an alphabetic language.

The point here is, if the purpose of the study was to compare the efficacy of i/t/a with T.O. as a medium for teaching beginning reading, the two programs should have been as nearly alike as possible, particularly in word analysis. It appears that this was not attempted in the Lehigh-Bethlehem study and that it may have had an effect on the first year results.

A third factor, which may have influenced the first year results of the Lehigh-Bethlehem study, was the amount of time devoted to reading instruction in the two groups. It is not clear in the research report whether all the children in both groups started to learn to read at the same time.

The fact that the T.O. children were exposed to a co-basal program suggests that actual reading instruction may have been delayed for some children in this group. On the other hand, the use of a single series with the i/t/a children implies that all of the children in this group may have started actual reading at the same time.

If a difference in instructional time did occur, and this is not clear, the comparison made in the ninth month of the experiment may have matched some T.O. children with i/t/a children in terms of sex, age, I.Q., and socioeconomic status, but not in terms of the amount of actual reading instruction they received. Such an arrangement would put the T.O. group at a disadvantage.

Finally, it can be hypothesized that the ninth month results favoring the 114
i/t/a children, who had made the tran-
sition to T.O., might have been different,
if the 114 best readers in the T.O. group
had been used for the comparison. This
is not intended to detract from the thor-
ough approach used by Professor Mazur-
kiewicz in this portion of his study, for
he carefully matched the children on the
important independent variables of I.Q.,
sex, age, and socioeconomic status. How-
ever, since these variables have less than a
perfect correlation with reading achieve-
ment, individually or in combination, the
ninth month comparison very possibly
pitted the best 114 i/t/a students against
114 T.O. students who undoubtedly were
not the best readers in their group, al-
though they matched the i/t/a group
on the important variables. The fact that
the standard deviations of the scores on
the tests used in the ninth month, indi-
cated a greater variability for the T.O.
group than for the i/t/a group makes
this hypothesis plausible.

Since the four factors just discussed
may have influenced the ninth month re-
results, the hypothesis that any differences
which occurred in achievement in the
first year of the Lehigh-Bethlehem study
were a result of the differences between
i/t/a and T.O., alone, is untenable. Until
these factors are satisfactorily accounted
for, this position seems to be a reason-
able one. Hopefully, the next Lehigh-
Bethlehem report will clarify some of
these questions.

Research Needed

Is i/t/a a way or the way to teach
beginning reading? On the basis of the
work done in England and the first year
of the Lehigh-Bethlehem study, it is ap-
parent that i/t/a can be utilized as a
medium to teach some youngsters to
read T.O. very well. Whether i/t/a is
the only reason for these youngsters' suc-
cess is a moot question at the moment.

On the other hand, the only way to
determine whether i/t/a is the way for
all children to learn to read is through
carefully designed research which will
provide reliable and valid answers to a
number of questions, such as: What long-
term effects will i/t/a have on reading
and spelling? How will i/t/a affect chil-
dren who have already begun to read?
Is it necessary for all children to go
through i/t/a and the transition before
moving to T.O.? Will the transition to
T.O. be overly frustrating and confusing
for some children? What will happen to
children who begin in i/t/a and move
to a T.O. school before the transition
has been completed? How will i/t/a
compare with T.O. when similar word
recognition programs are utilized with
both?

Since these questions and others re-
quire answers, it is too early to take sides
for or against i/t/a on an all or none
basis. Therefore, the consumer of re-
search on this topic must be objective
and must reserve judgment until all the
cards are dealt or at least until the cards
are reshuffled and dealt again.

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